

**REMARKS**

Applicant has carefully reviewed and considered the Office Action mailed on May 8, 2003, and the references cited therewith.

Claims 1-17 and 25-31 are now pending in this application, and claims 4, 6-8, 12-17, and 25-31 are presently withdrawn.

**§103 Rejection of the Claims**

Claims 1-3, 5 and 9-11 were rejected under 35 USC § 103(a) as being unpatentable over Marrs et al. (U.S. 5,355,283) in view of Hoffman et al. (U.S. 5,055,532). Applicant respectfully traverses the rejection and requests the Office to consider the following.

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). (M.P.E.P. § 2143 8<sup>th</sup> Ed, Rev.1).

The Office Action admits that Marrs et al. does not disclose "using a fiber reinforced encapsulation material." (Office Action at page 2). The Office Action appeals to Hoffmann et al. to supply this deficiency. Applicant notes that Hoffmann mentions fibers only in the Background and Summary sections, with neither a qualitative nor quantitative discussion of such fibers in the Detailed Description. Applicant respectfully asserts that such disclosure is not an enabling reference. Withdrawal of the rejections is respectfully requested.

With regard to claims 2 and 3, Applicant notes the Office refers to Hoffmann and a particle size of the fibrous filler material "being a critical particle size of about 20 microns." This assertion is in error. The particle size in Hoffmann is exclusively in reference to dispersed polymer particles and not with respect to any fibers. Accordingly, the rejections should be withdrawn.

Regarding the first criterion, Applicant respectfully asserts that the combination of Marrs and Hoffmann can only come by using Applicant's disclosure as a guide. Marrs uses bond wire technology that is not disclosed by Applicant, and Marrs is endeavoring to shrink the size of the package by encapsulating some or all of the wiring within a single encapsulant. Hoffmann neither teaches nor suggests the application of his polymer-modified vinylized epoxy resins to a microelectronic device. Applicant therefore respectfully asserts there is no motivation to combine Marrs with Hoffmann outside using Applicant's disclosure as a guide. Because the subject matter as a whole is unobvious over the cited references, withdrawal of the rejections is respectfully requested.

Regarding the second criterion, Applicant respectfully asserts that the combination of Marrs and Hoffmann can only come by using Applicant's disclosure as a guide. Marrs is concerned with any moisture getting to the die because "a good seal does not form at the interface between the traces 105 and the encapsulant 103 . . ." (Marrs at column 2, lines 17-20). If one were to include fibers from Hoffmann with the encapsulant of Marrs, Marrs' problem of moisture would reappear since the fibers do not have adhesive quality and therefore create the likelihood of porosity along Marrs' traces 105 and Marrs' vias 507. Because there is no expectation of success to overcome Marrs' problems by the addition of fibers from Hoffmann, the combination of Marrs with Hoffmann can only be made by using Applicant's disclosure as a guide. Because the subject matter as a whole is unobvious over the cited references, withdrawal of the rejections is respectfully requested.

Regarding the third criterion, the limitations of claims 2, 3, and 11 are neither taught nor suggested by the combination of Marrs with Hoffmann and withdrawal of the rejections is respectfully requested. Further regarding claims 5, 9, and 10, that the Office Action has assembled a mosaic of references, because of the unsuitability of combining Marrs with Hoffmann, Applicant respectfully asserts that the subject matter as a whole for these claims, is unobvious over the cited references. Withdrawal of the rejections is respectfully requested.

**AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111**

Serial Number: 09/854539

Filing Date: May 14, 2001

Title: POLYMERIC ENCAPSULATION MATERIAL WITH FIBROUS FILLER FOR USE IN MICROELECTRONIC CIRCUIT  
PACKAGING

Assignee: Intel Corporation

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Dkt: 884.415US1 (INTEL)

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney, John Greaves at (801) 278-9171, or the below signed attorney to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743

Respectfully submitted,

STEVEN TOWLE, BY HIS ASSIGNEE

By his Representatives,

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Date August 8, 2003 By   
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Reg. No. 25,179

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner of Patents, P O. Box 1450, Alexandria, VA 22313-1450, on this 8 day of August, 2003.

Name

Emily Bates

Signature

Emily Bates